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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,995	10/27/2005	Ronald F. Wilson	8328-3/MIW/SS/43799	1028

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WOODARD, EMHARDT, MORIARTY, MCNETT & HENRY LLP  
111 MONUMENT CIRCLE, SUITE 3700  
INDIANAPOLIS, IN 46204-5137

EXAMINER
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PAJOOHI, TARA S

ART UNIT	PAPER NUMBER
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2886

MAIL DATE	DELIVERY MODE
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02/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/549,995	<b>Applicant(s)</b> WILSON ET AL.	
	<b>Examiner</b> Tara S. Pajoohi	<b>Art Unit</b> 2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 113, 114, 120, 122, 124-127, 131, 133-138, 141 and 142 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 113, 114, 122, 133, 141 and 142 is/are rejected.
- 7) ☒ Claim(s) 120, 124-127, 131 and 134-138 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. Acknowledgement is made to the amendment filed on 1/21/2009.
3. Acknowledgment is made to the cancellation of claims 1-112, 115-119, 121, 123, 128-130, 132, 139-140 and 143-145.
4. Currently, claims 113-114, 120, 122, 124-127, 131, 133-138 and 141-142 are pending.

### *Claim Objections*

5. **Claim 113** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation "the axis of the smoking article" in line 7. There is insufficient antecedent basis for the limitation "the optical axis of the imaging device" in line 8. Please change "an optical viewing axis" in lines 20-21 to "an optical axis" as claimed on line 8. Appropriate correction is required.
6. **Claim 120** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation "the axis of the smoking article" in line 7. There is insufficient antecedent basis for the limitation "the optical axis of the imaging device" in line 8. Appropriate correction is required.
7. **Claim 122** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation "the axis of the smoking article" in line 7. There is insufficient antecedent basis for the limitation "the optical axis of the imaging device" in line 8. Appropriate correction is required.

8. **Claim 124** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation “the axis of the smoking article” in line 7. There is insufficient antecedent basis for the limitation “the optical axis of the imaging device” in line 8. Appropriate correction is required.

9. **Claim 131** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation “the axis of the smoking article” in line 5. There is insufficient antecedent basis for the limitation “the optical axis of the imaging means” in line 6. Appropriate correction is required.

10. **Claim 133** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation “the axis of the smoking article” in line 5. There is insufficient antecedent basis for the limitation “the optical axis of the imaging means” in line 6. Appropriate correction is required.

11. **Claim 134** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation “the axis of the smoking article” in line 5. There is insufficient antecedent basis for the limitation “the optical axis of the imaging means” in line 6. Appropriate correction is required.

12. **Claim 141** is objected to because of the following informalities: There is insufficient antecedent basis for the limitation “the axis of the smoking article” in line 7. There is insufficient antecedent basis for the limitation “the optical axis of the imaging means” in lines 7-8. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 113, 114, 141 and 142** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moshe (U.S. Publication No. 2006/0033919)** in view of **Futamura et al. (U.S. Patent No. 5,392,359)**.

15. Considering **claims 113, 114, 141 and 142**, Moshe discloses (abstract, paragraphs 3, 10 and 31-187) an apparatus (10) and method for determining one more physical properties (internal properties and characteristics of rod of material) of a rolled smoking article (12) or filter rod, said apparatus comprising:

- a. an imaging device (40) defining a field of view, said imaging device being adapted to image a rolled smoking article (12) or filter rod in said field of view (i.e., electro-optical inspecting includes analyzing light reflected from the rod in the form of photographic or video camera images, paragraph 10);
- b. a positioning unit (14) which positions a smoking article or filter rod in said field of view such that the axis of the smoking article or filter rod is substantially orthogonal to the optical axis of the imaging device (see fig. 1);
- c. an illuminating unit (26) which illuminates said field of view;
- d. a processor (i.e., computer) which processes said image to determine one or more physical properties of a smoking article or filter rod in said field of view, wherein said processor repeatedly samples said image as said smoking article or filter rod is rotated to obtain a plurality of image samples (i.e., article (12) is continuously moving and continuously inspected therefore it repeatedly samples the image of the article), wherein the processor

processes each image sample to obtain a measurement of a diameter of said rolled smoking article or filter rod in each image sample (para. 125), wherein the processor uses said measurements to obtain one or more physical properties of said rolled smoking article or filter rod selected from the mean diameter, ovality, circumference, roundness and shape of said rolled smoking article or filter rod (i.e., circumferential area, magnitude of the average diameter, etc., para. 125).

Moshe fails to specifically disclose a rotating mechanism which rotates said smoking article or filter rod about its axis in said field of view. Moshe also fails to specifically disclose the illuminating unit comprises one or more sidelights which are positioned laterally and on opposite sides of the optical axis.

In an apparatus and method for optically inspecting abnormalities of a rotating cigarette, Futamura discloses (col. 4) a rotating mechanism (21) which rotates said smoking article (2) or filter rod about its axis in the field of view of the imaging device (4) wherein the illuminating unit (3) comprises one or more sidelights which are positioned laterally and on opposite sides of the optical axis of the imaging device (see figures 1 and 2).

It would have been obvious to one having ordinary skill in the art to provide two side-by-side rollers to rotate the rolled smoking device as taught by Futamura in the system of Moshe, since Futamura discloses (col. 2) that it provides for less complicated imaging of a rotating cylindrical object. It would have been further obvious to one having ordinary skill in the art to provide one or more sidelights positioned laterally and on opposite sides of the optical axis of the imaging device as taught by Futamura in the system of Moshe, since Futamura discloses (col. 4) that it allows one to obtain an overall image of the outer periphery of the cigarette.

16. **Claims 122 and 133** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moshe (U.S. Publication No. 2006/0033919)** in view of **Futamura et al. (U.S. Patent No. 5,392,359)** and further in view of **Waugh et al. (U.S. Patent No. 5,353,356)**.

17. Considering **claims 122 and 133**, Moshe discloses (abstract, paragraphs 3, 10 and 31-187) an apparatus (10) and method for determining one more physical properties (internal properties and characteristics of rod of material) of a rolled smoking article (12) or filter rod, said apparatus comprising:

- e. an imaging device (40) defining a field of view, said imaging device being adapted to image a rolled smoking article (12) or filter rod in said field of view (i.e., electro-optical inspecting includes analyzing light reflected from the rod in the form of photographic or video camera images, paragraph 10);
- f. a positioning unit (14) which positions a smoking article or filter rod in said field of view such that the axis of the smoking article or filter rod is substantially orthogonal to the optical axis of the imaging device (see fig. 1);
- g. an illuminating unit (26) which illuminates said field of view;
- h. a processor (i.e., computer) which processes said image to determine one or more physical properties of a smoking article or filter rod in said field of view, wherein said processor repeatedly samples said image as said smoking article or filter rod is rotated by said rotating mechanism to obtain a plurality of image samples (i.e., article (12) is continuously moving and continuously inspected therefore it repeatedly samples the image of the article), wherein the processor processes each image sample to obtain a measurement of a diameter of said rolled smoking article or filter rod in each image sample (para. 125), wherein the processor uses said measurements to obtain one or more physical properties of said rolled

smoking article or filter rod selected from the mean diameter, ovality, circumference, roundness and shape of said rolled smoking article or filter rod (i.e., circumferential area, magnitude of the average diameter, etc., para. 125).

Moshe fails to specifically disclose a rotating mechanism which rotates said smoking article or filter rod about its axis in said field of view.

In an apparatus and method for optically inspecting abnormalities of a rotating cigarette, Futamura discloses (col. 4) a rotating mechanism (21) which rotates said smoking article (2) or filter rod about its axis in the field of view of the imaging device (4).

It would have been obvious to one having ordinary skill in the art to provide two side-by-side rollers to rotate the rolled smoking device as taught by Futamura in the system of Moshe, since Futamura discloses (col. 2) that it provides for less complicated imaging of a rotating cylindrical object.

Still lacking the limitation of the processor detects one or more circumferential markers on a rolled smoking article or filter rod which are constructed and arranged to indicate its rotational orientation.

In an apparatus and method for optically inspecting abnormalities of a cigarette, Waugh discloses the use of one or more sidelights and a product gauge (applicant's processor) to determine the positioning of a seam (applicant's circumferential marker) to indicate its orientation and therefore determine a complete revolution of the cigarette.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to detect a circumferential marker on a cigarette to indicate its rotational orientation as taught by Waugh in the modified system and method of Moshe, since Waugh teaches that it provides a greater precision and accuracy when inspecting the object.



***Allowable Subject Matter***

18. Claims 120, 124-127, 131 and 134-138 would be allowable if rewritten to overcome the claim objections above.

***Response to Arguments***

19. Applicant's arguments, see pages 14-15, filed 1/21/2009, with respect to claims 113-114, 120, 122, 124-127, 131, 133-138 and 141-142 are have been fully considered. The allowability of claims 113-114, 122, 133 and 141-142 of 10/23/2008 has been withdrawn. Upon further consideration, a new ground(s) of rejection is made in view of Moshe, Futamura et al. and Waugh et al.

***Conclusion***

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara S. Pajoochi whose telephone number is (571)272-9785. The examiner can normally be reached on Monday - Thursday 9:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on 571-272-2287. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Tara S. Pajoochi  
Patent Examiner

TSP

/TARIFUR R CHOWDHURY/  
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